

REMARKS

Applicant is in receipt of the Office Action mailed May 8, 2006. Claims 1-4, 10, 11, 16, and 20 have been rejected. Claims 5-9, 12-15, and 17-19 were objected to. Claims 1-20 are pending in the application.

35 U.S.C. § 102 Rejection:

Claims 1-4, 10, 11, 16, and 20 were rejected under 35 U.S.C 102(b) as being anticipated by Lai, U.S. Pat. No. 5,734,911. Applicant respectfully traverses this rejection. **The cited reference does not teach or suggest all of the elements of the independent claims.**

Independent claim 1 recites:

A method for handling an interrupt, the method comprising:
receiving an interrupt request corresponding to a particular interrupt;
upon receiving the interrupt request, substituting a vector corresponding to a group of
interrupts with a vector corresponding to the particular interrupt, wherein said
substituting does not require performing a polling operation; and
jumping to a service routine corresponding to the particular interrupt responsive to said
substituting.

Examiner refers to fig. 2C and col. 2, lines 39-47 of Lai as showing all of the elements recited in claim 1. It is clear from the specification of Lai, however, that Lai does not show “substituting a vector corresponding to a group of interrupts with a vector corresponding to the particular interrupt, wherein said substituting does not require performing a polling operation”. The Abstract of Lai clearly describes a “method of linking peripheral devices to a single interrupt procedure in a computer”, for which fig. 2C and its corresponding description are disclosed as prior art (see fig. 2C and Background To The Invention section of Lai). Accordingly, fig. 2C, as explained in col.

2, lines 39-47 illustrates a method of using a single interrupt vector table entry for plural peripheral devices, in which case a pointer vector A points to a memory resident program TSR [Terminate and Stay Resident computer program], which redirects all software interrupts to the proper device 15A, 15B, 15C or 15D, thereby determining and dispatching all of the interrupt calls. Using a single interrupt vector table entry for plural peripheral devices, however, is not indicative, nor does it imply, substituting a vector corresponding to a group of interrupts with a vector corresponding to a particular interrupt that is received. In addition, as a TSR is used, polling is involved. In this context, the single interrupt vector table entry for plural peripheral devices simply indicates that multiple peripheral devices have the same interrupt entry, and – as indicated in col. 2, lines 39-47, that single interrupt vector table entry has to further point to a memory resident program that needs to make the determination which of the actual peripheral devices the interrupt corresponds to.

Col. 2, lines 52-58 further state: “In the event the IRQs are not all preassigned, the requirement to have a one-to-one relationship between IRQs and peripheral devices, and software interrupt vectors whether in a vector table or in a TSR, requires system resources such as random access memory (RAM) based programs to be used, which reduces the amount of system memory available to process application programs.” Thus, it is clear that the prior art referenced by Lai in fig. 2C and corresponding description neither teaches nor suggests claim 1, since in lieu of substituting one vector for another, RAM based programs are used to make the proper determination of which device an actual interrupt corresponds to, in effect performing a type of polling operation whereas claim 1 recites “wherein said substituting does not require performing a polling operation”. Applicant would further like to note that the features recited in claim 1 aim to alleviate at least in part the issues also pointed out in Col. 2, lines 52-58 of Lai, referencing the use of software interrupt vectors as taught in fig. 2C and corresponding description.

Accordingly, Applicant respectfully submits that Examiner’s characterization of Lai as obtaining the vector corresponding to the particular interrupt – as recited in claim 1 – from a lookup table in fig. 2C is incorrect. It is clear from the description corresponding to fig. 2C in col.2 lines 39-47 that pointer vector A, though a single

interrupt vector table entry for plural peripheral devices, points to a memory resident program, not a lookup table, and is never substituted with another vector, but is instead processed via the TSR to make a determination of which peripheral device the interrupt corresponds to. Furthermore, the specification of Lai nowhere discloses, teaches, or suggests all of the elements of claim 1.

For at least these reasons, Applicant submits that the combinations of features recited in independent claims 1 and 11 are not anticipated by Lai, and are neither suggested by nor inherent in Lai, since the cited prior art in Lai is based on using a software routine that in effect performs a polling operation. Accordingly, Applicant respectfully requests removal of the 35 U.S.C. § 102(b) rejection. Because the independent claims were shown to be allowable, all dependent claims are also allowable for at least the same reasons, and further discussion of the dependent claims is not necessary at this time.

Allowable Subject Matter:

Claims 5-9, 12-15, and 17-19 were objected to as being dependent upon a rejected base claim, but were deemed allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant acknowledges and appreciates the allowable subject matter. However, because claim 1 was shown to be allowable and claims 5-9 depend on claim 1, claims 5-9 are also allowable for at least the reasons given above. Similarly, because claim 11 was shown to be allowable and claims 12-15 and 17-19 depend on claim 11, claims 12-15 and 17-19 are also allowable for at least the reasons given above.

CONCLUSION

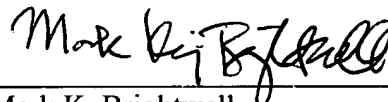
Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5707-04500/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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